

Work Order ID 164932

Wednesday, August 09, 2017 3:44:40 PM

164932

Item ID: 647.1611

Revision ID:

Item Name: Wiper Deflector, Aft

Start Date: 7/13/2017 Start Qty: 6.00

Required Date: 8/9/2017 Req'd Qty: 6.00

Reference:

Accept

N9000040100

Setup Start

N.S1

Stop

N.S2

Cust Item ID:

Customer:

6
6
7

Approvals: Process Plan: 21 9-89

Date: AUG 10 2017

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

NR1

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID
Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr Revision Nbr

647.1600 A

100

100

BAND SAW

Bandsaw

Memo

Jeaspa Bandsaw

Cut Blanks at 6.00"

0.00

0.01

6 0

1 17-08-17

110

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

HAAS CNC vertical machine #1

1-Machine per folio FB287

DWG REV: A

FOLIO REV: 44

1.81

2.39

6 2 54 17/08/17

2- deburr and break all sharp edges

PTO

mq 18 June 2019

DQA: _____ Date: _____

QA Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only



Work Order: <u>164932</u> Part No. <u>647.1611</u> NCR No. <u>19-7161</u>		DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Cross tube ☐ Water Jet ☐ Small Fab ☐ Prod. Eng. Coord. ☐ Finishing ☐ Rec/Store/Packaging ☐ Composite ☐ Supplier ☐				Engineering ☐ Quality ☐ Other ☐	
Date: <u>17/08/20</u>		Step #: <u>1 and 2</u>		QTY Effective: <u>2</u>		MRB (Q51042) Approval DAS <u>9-89</u> <u>17-08-24</u>			
Description Work Order Deviation				Disposition					
① Ran into piece with tool holder ② Ran into piece with tool / broke tool and scrapped piece				Tool length not identified in folio (identified length on ① Omitted Z axis / entered axis in comp. Accraps and replace Qty 2 Batch B91744					
Completed By <u>SC</u> <u>17/08/20</u>				Lead hand / Supervisor Approval Verification <u>SM</u> <u>17/08/24</u>					
QC / QA Coordinator Approval DAS <u>9-89</u> <u>17-08-24</u>									

Root Cause				FAULT CATEGORY																			
Environment	Design	Doc/Data	Equip/Tooling	Handling/Pre	Material	Internal Transport	Tribal Knowledge	LOA	Substation	Past Expiry Date	Misidentified	No Re-verification	Operator	Offset/Setup	Supplier	Training	Use for Testing	Poor Information	Rushing	Product Improvement	Process Improvement	Manufacturing Process	Past Due
☐	☐	☐	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				Pressure/Forced Bending				Temperature/Cure Set-up				Power Loss/Surge Folio/Program				Positioned Wrong Outside Dimensions							
				Centre Not Concentric				BOM/Route				Grain				Over/Under tolerance							
				Cracks				Broken/Damage/Defect				Weld				Part Incorrect							
				Crimp/Kink/Ripple/Wave				Inspection Incomplete/Unqualified				Wrong Stock Pulled				Part Lost/Missing							
				Cuffs				Contamination				Out of Sequence				Part Moved							
				Crushing				Countersink				Off-set				Drawing							
				Heat Treat				Cut Too Short				Mislabeled				Finish							
				Wave/Twist in Tube				Instructions Incomplete/Unclear				Fit/Function				Misread							
				Marks/Chatter				Drill Holes				Misaligned/off center				Turning Sequence							
OTHER: _____																							

Work Order ID 164932

Wednesday, August 09, 2017 3:44:40 PM

164.932

Item ID: 647.1611

Revision ID:

Item Name: Wiper Deflector, Aft

Start Date: 7/13/2017

Start Qty: 6.00

Required Date: 8/9/2017

Req'd Qty: 6.00

Reference:

Accept

N900040100

Setup Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

NR1

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC2- Inspect parts off machine FA/FAIB

0.00

120

Memo

0.06

Quality Control

130

QC8- Inspect parts - second check

0.00

130

Memo

0.12

Quality Control

140

Outsource process-Anodize per QSI017 4.1.10.1

0.00

140

Memo

1,080.00

Outsource process - Anodize

Issue P/O to ATG: 32512

1- Black Anodize as per Dwg 647.1600

2- PRIME AS PER DWG, SEE NOTE #2

Certification of Conformity is required

6 DAS 13 8-09

10/08/22 AUG 25 2017

17/08/22

DAS 49 9-89

6 2 2 5/2 17/08/20

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework Scrap Use-as-is Suspected Unapproved		AGAINST DEPARTMENT/PROCESS Skid-tube Machining Thermoforming Large Fab Cross tube Small Fab Finishing Composite Water Jet Prod. Eng. Coord. Rec/Store/Packaging Supplier				Engineering Quality Other	
Date :		Step #:		QTY Effective :		MRB (QS1042) Approval			
Description Work Order Deviation				Disposition					
				Completed By					
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					

Root Cause		FAULT CATEGORY									
Environment	No Re-verification	Pressure/Forced	Temperature/Cure	Power Loss/ Surge	Positioned Wrong						
Design	Operator	Bending	Set-up	Folio/Program	Outside Dimensions						
Doc/Data	Offset/Setup	Centre Not Concentric	BOM/Route	Grain	Over/Under tolerance						
Equip/Tooling	Supplier	Cracks	Broken/Damage/Defect	Weld	Part Incorrect						
Handling/Pre	Training	Crimp/Kink/Ripple/Wave	Inspection Incomplete/Unqualified	Wrong Stock Pulled	Part Lost/Missing						
Material	Use for Testing	Cuffs	Contamination	Out of Sequence	Part Moved						
Internal Transport	Poor Information	Crushing	Countersink	Off-set	Drawing						
Tribal Knowledge	Rushing	Heat Treat	Cut Too Short	Mislabeled	Finish						
LOA	Product Improvement	Wave/Twist in Tube	Instructions Incomplete/Unclear	Fit/Function	Misread						
Substation	Process Improvement	Marks/Chatter	Drill Holes	Misaligned/off center	Turning Sequence						
Past Expiry Date	Manufacturing Process										
Misidentified	Past Due										
		OTHER :									

Work Order ID 164932

Wednesday, August 09, 2017 3:44:40 PM

164932

Item ID: 647.1611

Accept

Revision ID:

N900040100

Setup Start

NS1

Item Name: Wiper Deflector, Alt

Stop

NS2

Start Date: 7/13/2017

Start Qty: 6.00

6

Cust Item ID:

Required Date: 8/9/2017

Req'd Qty: 6.00

6

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

NR1

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150

Receive & Inspect for Damage & Mat'l Carts

0.00

150

Packaging

Memo

0.12

7 DAS
6 9-89

SEP 15 2017

155

QC5- Inspect part completeness to step on W/O

0.00

155

QC

Memo

0.12

Quality Control

① 17.29.15

DAS
9 9-89

180

Identify as per dwg & Stock Location: CCK891

0.00

180

Packaging

Memo

0.06

DAS
26 9-89

7 SEP 18 2017

7

Packaging

IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV



DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS									
Part No. _____		Rework Scrap Use-as-is		Skid-tube Machining Thermoforming Large Fab		Cross tube Small Fab Finishing Composite		Water Jet Prod. Eng. Coord. Rec/Store/Packaging Supplier		Engineering Quality Other			
NCR No. _____		Suspected Unapproved		Thermoforming Large Fab		Cross tube Small Fab Finishing Composite		Water Jet Prod. Eng. Coord. Rec/Store/Packaging Supplier		Engineering Quality Other			
Date : _____		Step #:		QTY Effective :		MRB (QSI042) Approval							
Description Work Order Deviation				Disposition									
												Completed By	
												Lead hand / Supervisor Approval Verification	
												QC / QA Coordinator Approval	
FAULT CATEGORY													
Root Cause				FAULT CATEGORY									
Environment	No Re-verification	Pressure/Forced	Temperature/Cure	Power Loss/Surge	Positioned Wrong								
Design	Operator	Bending	Set-up	Folio/Program	Outside Dimensions								
Doc/Data	Offset/Setup	Centre Not Concentric	BOM/Route	Grain	Over/Under tolerance								
Equip/Tooling	Supplier	Cracks	Broken/Damage/Defect	Weld	Part Incorrect								
Handling/Pre	Training	Crimp/Kink/Ripple/Wave	Inspection Incomplete/Unqualified	Wrong Stock Pulled	Part Lost/Missing								
Material	Use for Testing	Cuffs	Contamination	Out of Sequence	Part Moved								
Internal Transport	Poor Information	Crushing	Countersink	Off-set	Drawing								
Tribal Knowledge	Rushing	Heat Treat	Cut Too Short	Mislabeled	Finish								
LOA	Product Improvement	Wave/Twist in Tube	Instructions Incomplete/Unclear	Fit/Function	Misread								
Substation	Process Improvement	Marks/Chatter	Drill Holes	Misaligned/off center	Turning Sequence								
Past Expiry Date	Manufacturing Process												
Misidentified	Past Due												
OTHER : _____													

Work Order ID 164932

Wednesday, August 09, 2017 3:44:40 PM

164932

Page 4

Item ID: 647.1611

Accept

Revision ID:

N900040100

Setup Start

NS1

Item Name: Wiper Deflector, Aft

Stop

NS2

Start Date: 7/13/2017

Start Qty: 6.00

Cust Item ID:

Required Date: 8/9/2017

Req'd Qty: 6.00

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number Insp.
Stamp

190 QC21 - Final Inspection - Work Order Release

0.00

190

Memo

0.60

Quality Control

SEP 18 2017

17/9/2017

H:/FORMS/Quality Assurance/approved QA/NCRWO Rev I

Picklist Print

Wednesday, August 09, 2017 3:44:40 PM

Work Order ID: 164932

Parent Item: 647.1611

Parent Item Name: Wiper Deflector, Aft

164.932

*647 1611 *

Start Date: 7/13/2017

Required Date: 8/9/2017

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP REV A NEW ISSUE VERIFIED BY DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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647.1611B

Manufactured No

100

114.0000

0.5

3.157895

DAS

647 1611F

Wiper Deflector

**

9-89

17-08-17

Location

MAT034

91744

Loc Qty

114

114

Loc Code

3.02 + 3.03



DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS				Engineering											
Part No. _____		Rework Scrap Use-as-is		Skid-tube Machining Thermoforming		Cross tube Small Fab Finishing Composite		Water Jet Prod. Eng. Coord. Rec/Store/Packaging Supplier		Quality Other									
NCR No. _____		Suspected Unapproved		Large Fab		Composite		Supplier		MRB (QS1042) Approval									
Date: _____		Step #: _____		QTY Effective: _____															
Description Work Order Deviation				Disposition															
												Completed By							
												Lead hand / Supervisor Approval Verification		QC / QA Coordinator Approval					
Root Cause				FAULT CATEGORY															
Environment				Pressure/Forced				Temperature/Cure				Power Loss/Surge				Positioned Wrong			
Design				Bending				Set-up				Folio/Program				Outside Dimensions			
Doc/Data				Centre Not Concentric				BOM/Route				Grain				Over/Under tolerance			
Equip/Tooling				Cracks				Broken/Damage/Defect				Weld				Part Incorrect			
Handling/Pre				Crimp/Kink/Ripple/Wave				Inspection Incomplete/Unqualified				Wrong Stock Pulled				Part Lost/Missing			
Material				Cuffs				Contamination				Out of Sequence				Part Moved			
Internal Transport				Crushing				Countersink				Off-set				Drawing			
Tribal Knowledge				Heat Treat				Cut Too Short				Mislabeled				Finish			
LOA				Wave/Twist in Tube				Instructions Incomplete/Unclear				Fit/Function				Misread			
Substation				Marks/Chatter				Drill Holes				Misaligned/off center				Turning Sequence			
Past Expiry Date																			
Misidentified																			
				OTHER: _____															

DART AEROSPACE LTD	Work Order: 164932
Description: Wiper Deflector, Aft	Part Number: 647.1611
Inspection Dwg: 647.1600 Rev: A	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.32	+/-0.010	0.325				
5.77	+/-0.010	5.768				
2.42	+/-0.010	2.419	✓		Ver caliper	
0.36	+/-0.010	0.364	✓		"	
1.56	+/-0.010	1.560	✓		Ver caliper	
0.404	+/-0.005	0.406	✓		H.G.	
3.967	+/-0.002	3.967	✓		H.G.	
Ø0.433 x 0.146 DP	+/-0.005 x +/-0.005	Ø0.433 x 0.149	✓		G.P. + Ver caliper	
Ø0.217	+0.005/-0.001	Ø0.217	✓		G.P.	
0.365	+/-0.005	0.367	✓		Ver caliper	
1.385	+/-0.002	1.385	✓		"	
2.16	+/-0.010	2.160	✓		Ver caliper	
0.35	+/-0.010	0.353	✓		Ver caliper	
0.20	+/-0.010	0.200	✓		"	
0.944	+/-0.005	0.944	✓		H.G.	
0.606	+/-0.002	0.605	✓		H.G.	
0.381	+/-0.002	0.380	✓		H.G.	
3.31	+/-0.010	3.311	✓		H.G.	
0.713	+/-0.002	0.715	✓		H.G.	
1.445	+/-0.002	1.444	✓		H.G.	
0.54	+/-0.010	0.540	✓		H.G.	
Ø0.15 x 62.7°	+/-0.010 x +/-0.5°	Ø0.150 x 62.5°	✓		A.G. + Ver	
Ø0.170	+0.005/-0.001	Ø0.170	✓		G.P.	
R0.20	+/-0.010	R0.200	✓		H.G.	
4.88	+/-0.010	4.88	✓		H.G.	
3.89	+/-0.010	3.89	✓		H.G.	

Measured by: SC	Audited by: DAS 49	Preliminary Approval:
Date: 17/08/20	Date: 17/08/22	Date:

Rev	Date	Change	Revised by	Approved
A	14.06.05	New Issue	KJ	

INDUSTRIES, INC.

SHEET 1 OF 1

EFFECT ON DWG ☐ INC. ☒ UNINC.

EFF. NEXT ORDERED

TRANSACTION CODES (TC):
A-ADD
R-REVISE
C-CREATE
D-DELETE

ECR:
13-032

NO. 16958 MC

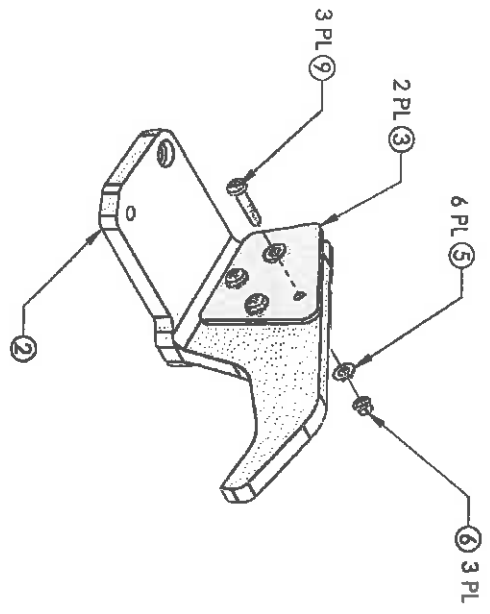
2780E

8	R	601.2207	8		NUTPLATE RIVET	CCR265SS3-3	
F/N	TC	PART NUMBER	.1602.1601		DESCRIPTION	MATERIAL	SPECIFICATION
			QTY				
DOCUMENTS EFFECTED:							
☐ MDL ☐ INSTALL. INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM					CHANGE CATEGORY	DER REVIEW REQUIRED	
					☐ MAJOR ☒ MINOR	☐ YES ☒ NO	

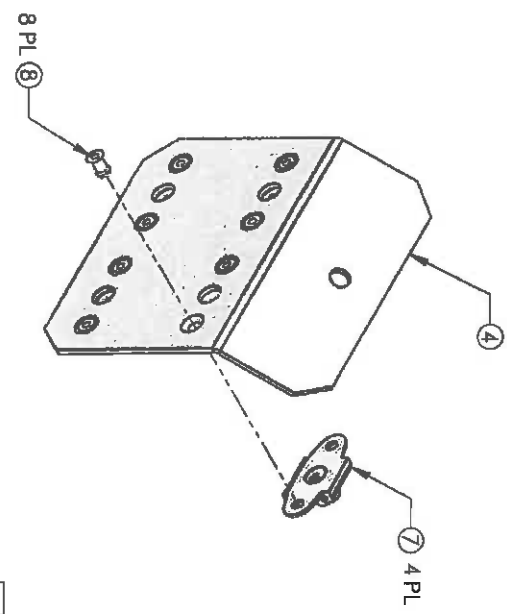
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NOTES:

1. MATERIAL: ALUMINUM 7075-T651 AMS-QQ-A-250/12
2. MATERIAL: ALUMINUM 2024-T3 PER AMS-QQ-A-250/4
3. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL-P-23377 TYPE I CLASS N
4. DEBURR AND BREAK ALL SHARP EDGES
5. IDENTIFY IAW MPP-120



647.1601 SHOWN EXPLODED

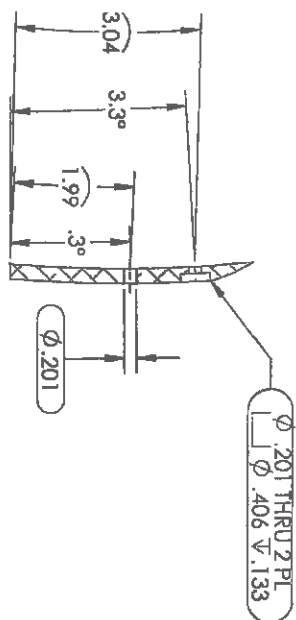


647.1602 SHOWN EXPLODED

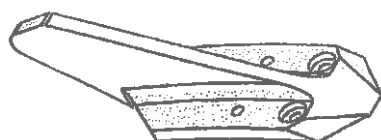
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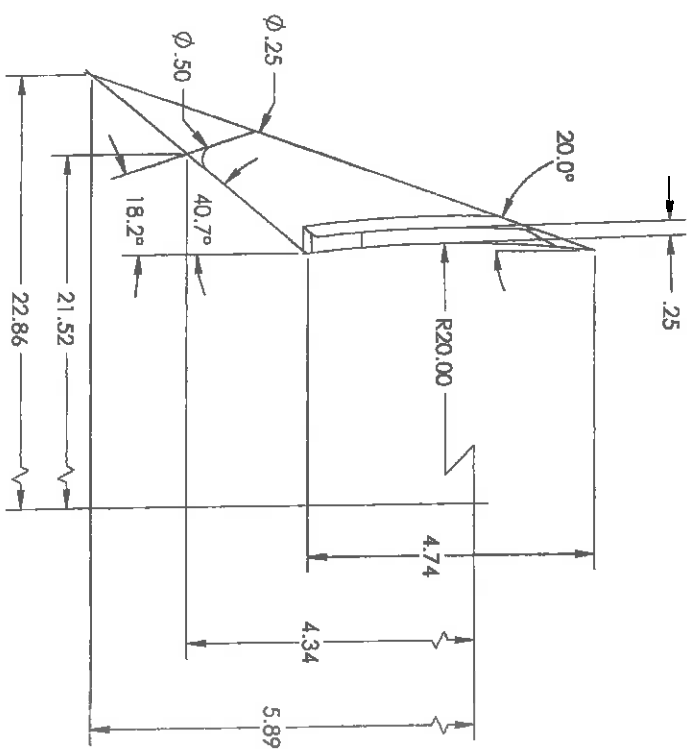
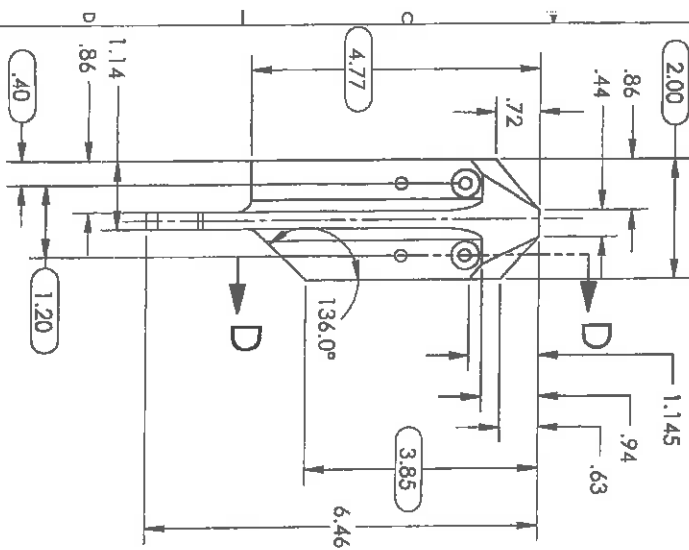
3	9	601.2769	SCREW	MA3009-2B12
8	8	601.2960	NUT/PLATE RIVET	CC234AS 3/4"
4	7	601.1900	NUT/PLATE	MA3109-S
3	6	601.2973	LOCKWUT	MA3102-048
6	5	601.2764	WASHER	MA111991832P
1	4	647.1613	DOUBLER	△
2	3	647.1612	SPICE PLATE	△
1	2	647.1611	WIPER DEFLECTOR, AFT	△
1	1	647.1610	WIPER DEFLECTOR, FWD	△
X		647.1602	DOUBLER ASSY	△
X		647.1601	WIPER DEFLECTOR ASSY, AFT	
1.602	1.601			
PARTS LIST				
APICAL INDUSTRIES				
2408 TEMPLE HEIGHTS DR.				
OAKENBERRY, CA 92255-3812 (714) 924-7800				
WIPER DEFLECTOR ASSY				
DATE OF CHANGE SPECIFIED				
3/14/2004				
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MA3109-S				
MA3102-048				
MA111991832P				
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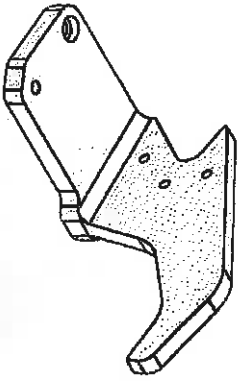


SECTION D-D



647.1610

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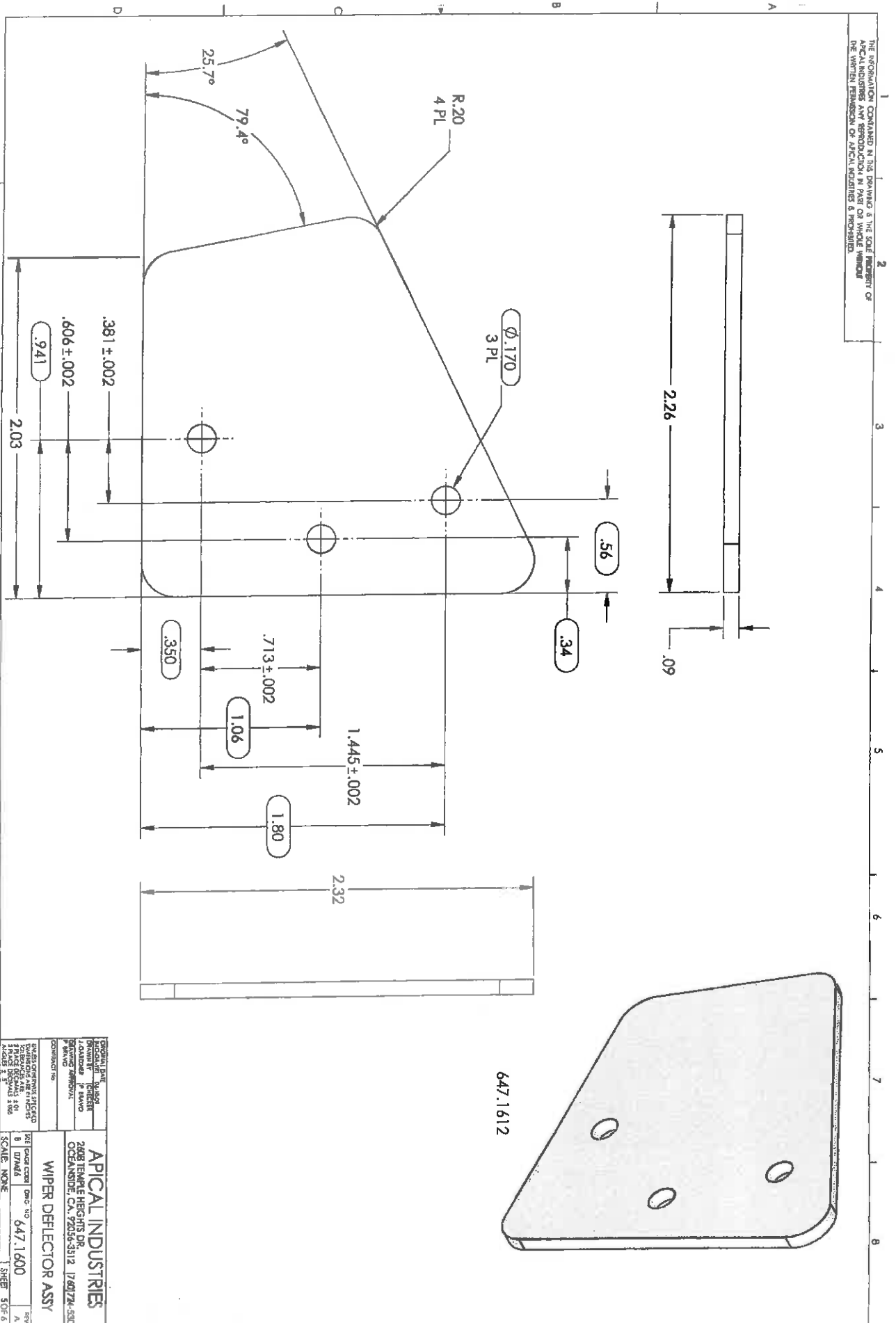
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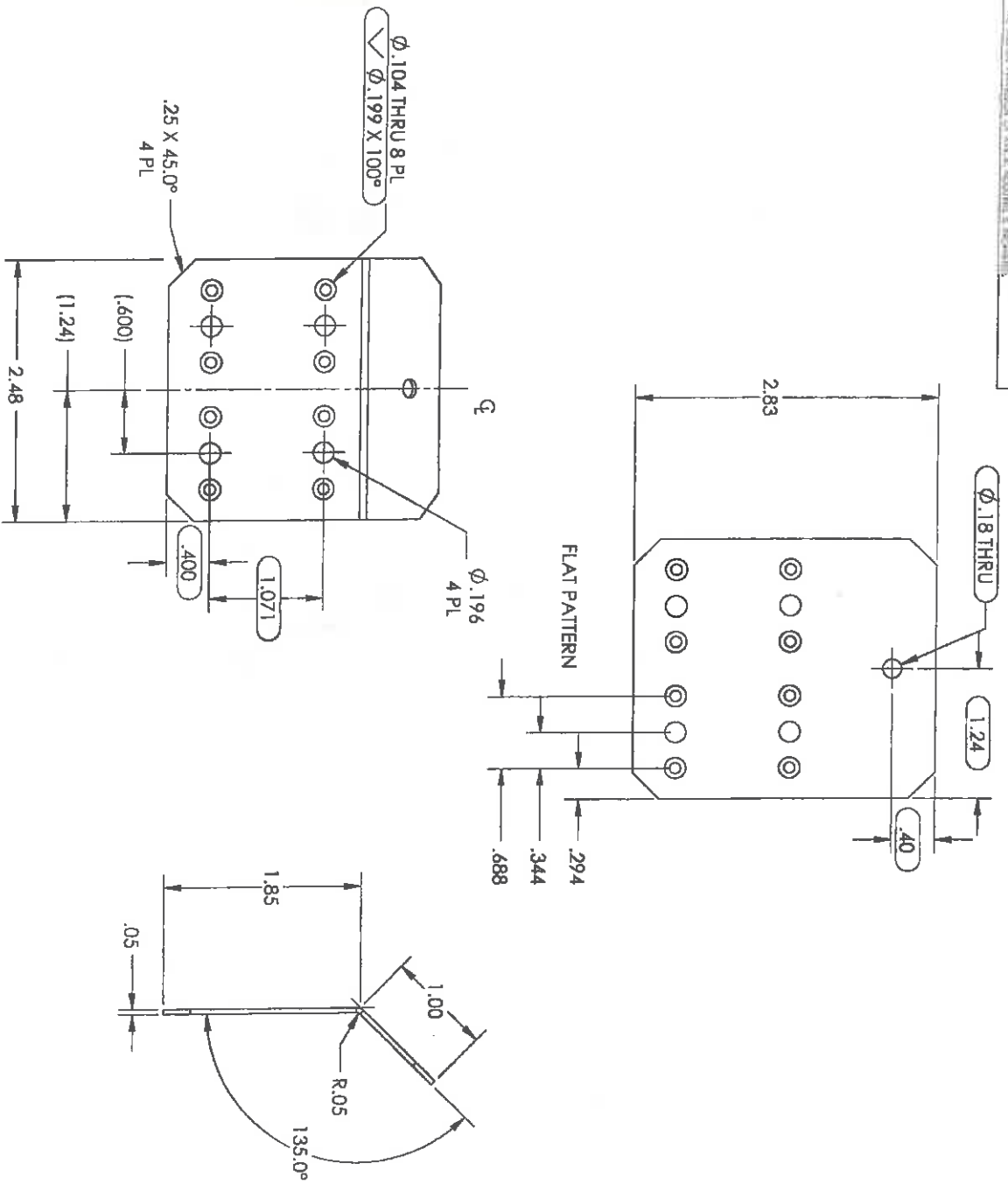
REV: A
SHEET 4 OF 6

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APICAL INDUSTRIES 2400 TEMPLE HEIGHTS DR OCEANSIDE, CA 92055-5512 1760/724-5500	
WIPER DEFLECTOR ASSY 647.1600	647.1612
SCALE: NONE SHEET 50F-6	647.1612

THIS DRAWING CONTAINS THE DESIGN & THE PROPERTY OF
APICAL INDUSTRIES, INC. AND IS NOT TO BE REPRODUCED OR
TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL,
INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE
RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM APICAL INDUSTRIES, INC.



APICAL INDUSTRIES	
2408 THURLE HEIGHTS DR.	
OCEANSIDE, CA 92056-3912 (760) 734-5300	
WIPER DEFLECTOR ASSY	
DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
SCALE: NONE	SHEET 6 OF 6





Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO37552

Purchase Order Date 8/25/2017

PO Print Date 8/29/2017

Page Number 2 of 7

Order From :

VC-ATG001

Ship To : DART AEROSPACE LTD

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

613-446-4544

Buyer

Diane Baker

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Ship To Contact

Ship To Phone

Ship Via:

VENDOR'S TRUCK

Ship Acct:

3 164932

647.1611 Wiper Deflector,
Aft

9/13/2017

6.00

\$10.70

\$64.

Yes

9/13/2017

As per Dwg 647.1600 Rev A

Hard Anodize IAW MIL-A-8625F, Type III, Class 2, Color Black; Prime IAW MIL-PRF-23377, Type I, Class N

Line Total:

\$64.

4 164957

D4842-3 Lower Cutter
Body, LH

9/13/2017

4.00

\$10.25

\$41.

Yes

9/13/2017

As per Dwg D4842

Rev B U/R

Hard Anodize IAW MIL-A-8625, Type III, Class 2, Color Black; Prime IAW MIL-P-23377, Type I, Class N, 1-2 mil max

Line Total:

\$41.

5 164958

D4842-4 Lower Cutter
Body, RH

9/13/2017

4.00

\$10.25

\$41.

Yes

9/13/2017

As per Dwg D4842

Rev B U/R

Hard Anodize IAW MIL-A-8625, Type III, Class 2, Color Black; Prime IAW MIL-P-23377, Type I, Class N, 1-2 mil max

SEP 15 2017

PO Instructions: PRIMER IS SUPPLIED BY DART

Note:

8/29/2017



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 913851

Date: 14-Sep-17

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Chantal Lavoie
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		OUR TRUCK	
Quantity	Description		
	Please reference this document's Pack List number on all correspondences regarding this shipment. If you have any questions, please contact us.		
11 ea	Part: 647.9710 Lower Body Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils). Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0001-.0002" (1 - 2 mils) per drawing. Job: 21630		Rev: A1 PO: PO37552 Line: 10
7 ea	Part: 647.1611 Wiper Deflector, Aft Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils). Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0006-.0009" (.6 - .9 mils). Job: 21623		Rev: A PO: PO37552 Line: 3
4 ea	Part: D4842-3 Lower Cutter Body, LH Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils). Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0001-.0002" (1 - 2 mils) per drawing. Job: 21624		Rev: B PO: PO37552 Line: 4
4 ea	Part: D4842-4 Lower Cutter Body, RH Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils). Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0001-.0002" (1 - 2 mils) per drawing. Job: 21625		Rev: B PO: PO37552 Line: 5
CERTIFICATE OF CONFORMANCE A.T.G Industries Inc. certifies that all items in this shipment conform to the requirements. Date: 14/09/2017			
Made in Canada.			

Made in Canada.

SEP 15 2017

Sonia Plouffe

WORK C

165790

Tuesday, August 29, 2017 10:44:46 AM

165790

N9000040100

Item ID: D4942-1
Revision ID:
Item Name: Floor Protector
Start Date: 8/29/2017 Start Qty: 1.00
Required Date: 9/1/2017 Req'd Qty: 1.00
Reference:

1
1

Cust Item ID:
Customer:

NS1
NS2

Approvals:

Process Plan: CM

QC: 21 Date: AUG 29 2017

Date: 8-29-2017

Tooling:

Date:

Run Start

Stop

NR1
NR2

Sequence ID/ Work Center ID	Operation Description	SPC (Y/N):	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
D4942	D									
110										

110

Purchasing
Purchasing

THERMOFORMING MACHINE

Memo

ISSUE P/O: 39621
SUPPLIER: PLASTECH

MANUFACTURE D4942-1 AS PER DWG
C OF C IS REQUIRED

0.00

AUG 31-2017
AUG 31 2017

140
140
Packaging
Packaging

Receive & Inspect for Damage & Mat'l Cnts
HAND FINISHING THERMOFORMING
Memo

0.00
0.00

CRAP

IX SP 12-21

Ph →

Not Closed:

Date:

19 June 2019

1006-1003-013

Work Order: 165798
Part No. D4942-1
NCR No. 19-7191
Date: 17/05/22

DISPOSITION

Rework ☐
Scrap ☒
Use-as-is ☐
Suspected Unapproved ☐

Description Work Order Deviation

~~Scrap~~ AT inspection Part found to be warped

Leak D to cause similar war

Scrap & Destroy

No Replac.

AGAINST DEPARTMENT/PROCESS

Skid-tube Machining ☐
Thermoforming ☐
Large Fab ☐
QTY Effective: ☐

Cross tube ☐
Small Fab ☐
Finishing ☐
Composite ☐

Prod. Eng. Coord. ☐
Rec/Store/Packaging ☐
Supplier ☒

Disposition

MRB (OSIU42) Approval

Completed By

Lead hand / Supervisor Approval Verification

QC / QA Coordinator Approval

FAULT CATEGORY

Temperature/Cure ☐
Set-up ☐
BOM/Route ☐
Broken/Damage/Defect ☐
Inspection Incomplete/Ungualified ☐
Contamination ☐
Countersink ☐
Cut Too Short ☐
Instructions Incomplete/Unclear ☐
Drill Holes ☐

Power Loss/Surge ☐
Folio/Program ☐
Grain ☐
Weld ☐
Wrong Stick Pulled ☐
Out of Sequence ☐
Off-set ☐
Misaligned/off center ☐
Fit/Function ☐
Misaligned/off center ☐

Positioned Wrong ☐
Outside Dimensions ☐
Over/Under tolerance ☐
Part Incorrect ☐
Part Lost/Missing ☐
Part Moved ☐
Drawing ☐
Finish ☐
Misread ☐
Turning Sequence ☐

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev 1

Root Cause

Environment ☐
Design ☐
Doc/Data ☐
Equip/Tooling ☐
Handling/Pre ☒
Material ☐
Internal Transport ☐
Tribal Knowledge ☐
LOA ☐
Substation ☐
Past Expiry Date ☐
Misidentified ☐
No Re-verification ☐
Operator ☐
Offset/Set-up ☐
Supplier ☒
Training ☐
Use for Testing ☐
Poor Information ☐
Rushing ☐
Product Improvement ☐
Process Improvement ☐
Manufacturing Process ☐
Past Due ☐

Pressure/Forced ☐
Bending ☐
Centre Not Concentric ☐
Cracks ☐
Crimp/Kink/Rip/le/Wave ☒
Cuffs ☐
Crushing ☐
Heat Treat ☐
Wave/Twist in Tube ☐
Marks/Chatter ☐

Item ID: D4942-1
Revision ID: D4942-1

Item Name: Floor Protector

Start Date: 8/29/2017

Required Date: 9/1/2017

Reference: Start Qty: 1.00
Req'd Qty: 1.00

165790

Accept

N9000040100

Cust Item ID:
Customer:

Setup Start
Stop *NS1*
NS2

Approvals:

Process Plan:

QC: Date:

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Run Start

Stop

NR1
NR2

150
150
QC

Set Up/
Run Hours

Reject Qty
Reject Number
Insp. Stamp

Operation
Description

QC- All purchased or subcontracted products

Memo

170

170
QC

Packaging
Packaging

Identify as per dwg & Stock Location:

Memo

180

180
QC

Quality Control

QC21- Final Inspection - Work Order Release

Memo

UN 1719/22

23 August 2017 10:44:46 AM

ark Order ID: 165790
Parent Item: D4942-1
Parent Item Name: Floor Protector

165790
D4942-1

Comments:

IPP Rev A New Issue 14/02/05 DL
Revised dimensions 14/02/12 DL
14/06/16 DL
DL
Verify DD

IPP Rev. B
IPP Rev. D Revised Dwg. 14/10/07
IPP Rev.E 17.08.14 Now a purchased part DP

Start Date: 8/29/2017
Start Qty: 1.00

Required Date: 9/1/2017
Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4942-1P													
D4942-1P		Purchased	No										
Floor Protector													
MLEXS.125-F60029-04													
MIFXS 125-F60029-04		Purchased	No										
GE PLASTICS LEXAN SHEET (DARK GREY)													

sf

3,198.340

**

16.66

118019-9-24

Location

mat

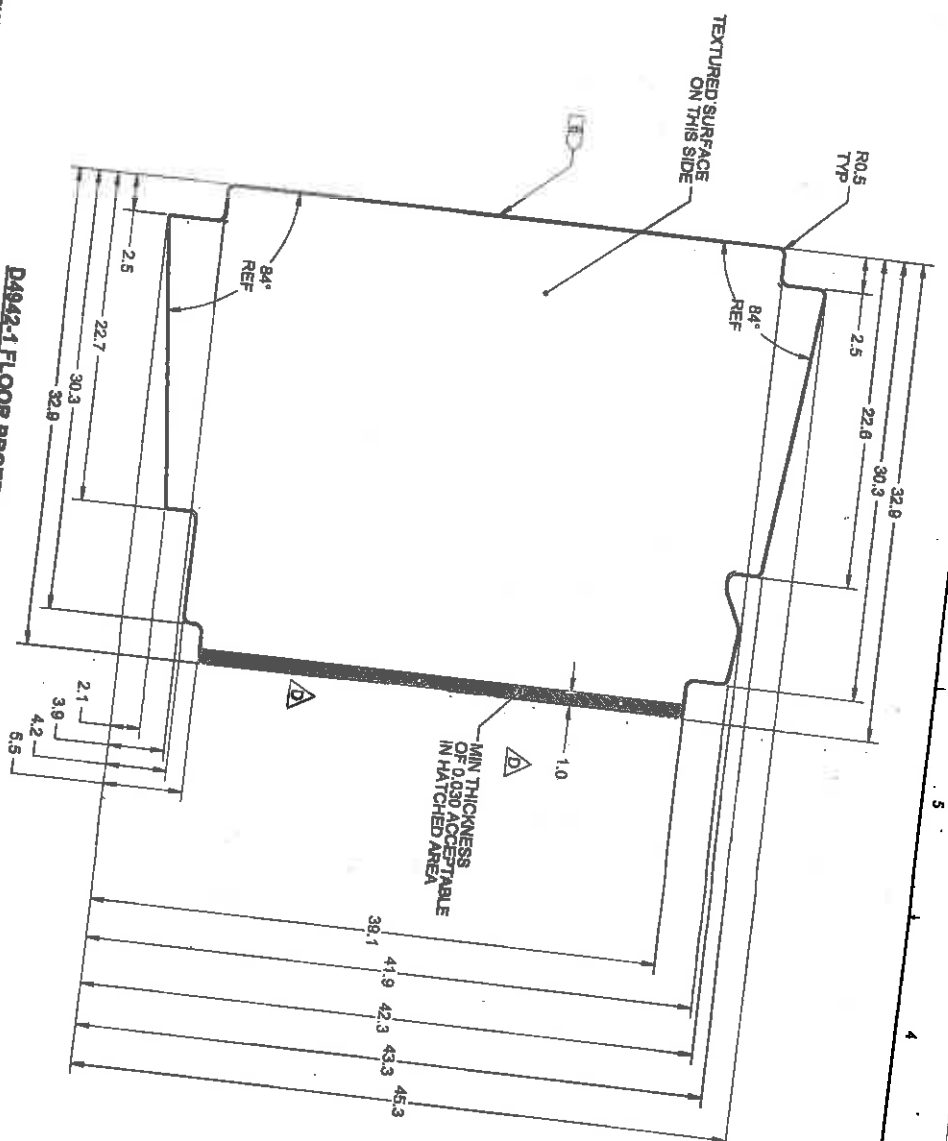
m137737
MAT018

m137737

Loc Qty

Loc Code

911.9
911.9
2286.44
2286.44



D4942-1 FLOOR PROTECTOR

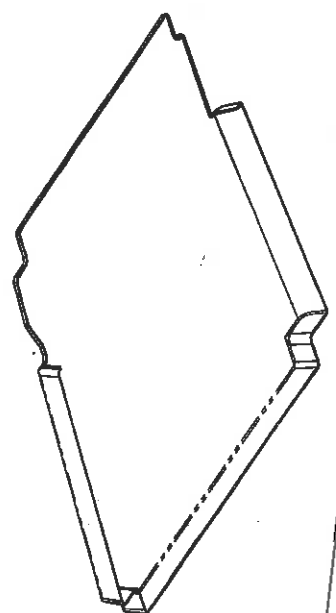
- NOTES:**
- 1) MATERIAL: F80028-GY3778 GREY LEXAN SHEET (HEAVY HAIRCELL TEXTURE) 0.125 THICK
 - 2) FINISH: N/A
 - 3) TOLERANCES: PER DART SPEC MEXS. 125-F80028-04
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY PER DART QSI 044 8:4
 - 7) WEIGHT: 6.6 lbs
 - 8) THERMOFORM PER QSI 022 USING MOLD DT8894
 - 9) MINIMUM THICKNESS AFTER FORMING IS 0.070" EXCEPT AS INDICATED

APPROVED

REV.	DESCRIPTION	DATE	BY
A	NEW ISSUE	14.06.16	AK
B	REVISED OVERALL DIMENSIONS OF D4942-1 (NOTE 1, 3, 4, 6)	14.06.16	AK
C	REVISED OVERALL DIMENSIONS OF D4942-1 (NOTE 1, 3, 4, 6)	14.06.16	AK
D	REVISED OVERALL DIMENSIONS OF D4942-1 (NOTE 1, 3, 4, 6)	14.06.16	AK

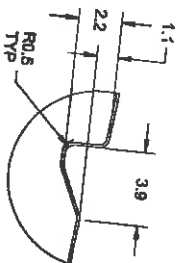
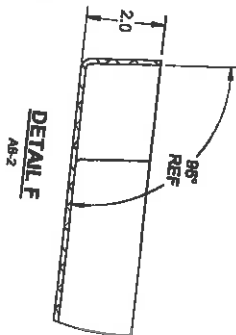
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DRAWN	AK	DATE	14.02.12
CHECKED	AK	DATE	14.02.12
WFG. APPR.	DL	DATE	14.02.12
APPROVED	DL	DATE	14.02.12
DATE	14.06.16	DATE	14.06.16

TITLE	DART AEROSPACE LTD
DATE	14.06.16
SCALE	N/A
SHEET 1 OF 3	



SHOP COPY
 AUG 29 2017
 165380

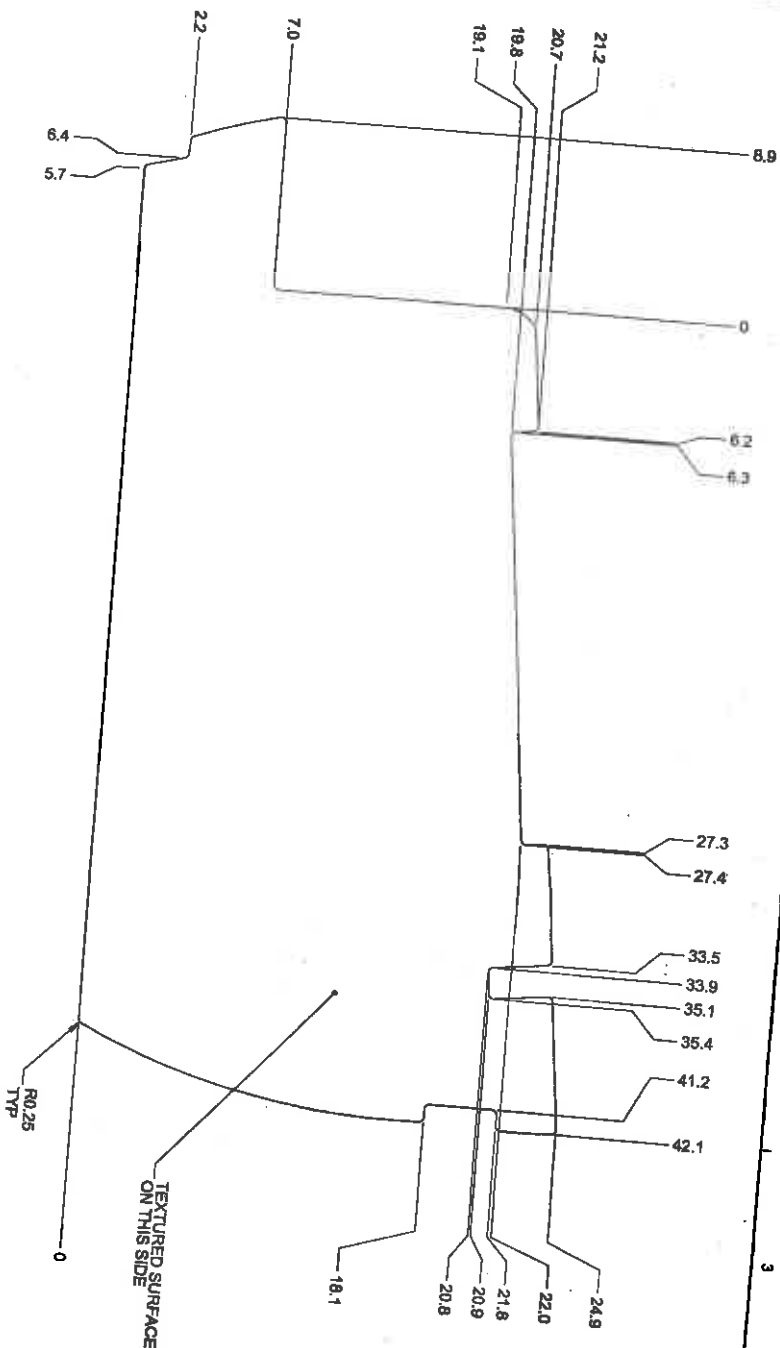
RELEASED
 2014-10-08



2014-10-08
RELEASED

- NOTES:
- 1) MATERIAL: F80029-GY3778 GREY LEXAN SHEET (HEAVY HAIRCELL TEXTURE) 0.125 THICK
 - 2) FINISH: N/A
 - 3) TOLERANCES: PER DART SPEC MEXS. 125-F80029-04
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY PER DART QSI 044 6.4
 - 7) WEIGHT: 4.9 lbs
 - 8) CUT PER D4942-3.DXF

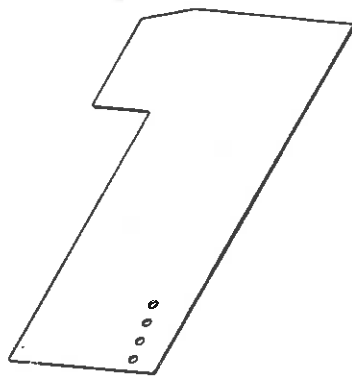
D4942-3 FWD PROTECTOR



APPROVED

DESIGN	AK	DART AEROSPACE LTD
DRAWN	AK	HAWKESBURY, ONTARIO, CANADA
CHECKED	VS	
MFG. APPR.	DL	
APPROVED	HS	
DATE	14.06.16	
DE APPR.	DS	
TITLE	BAGGAGE PROTECTORS	
REV. D		
SHEET 3 OF 8		
SCALE		
NIS		

RELEASED
2014-10-08



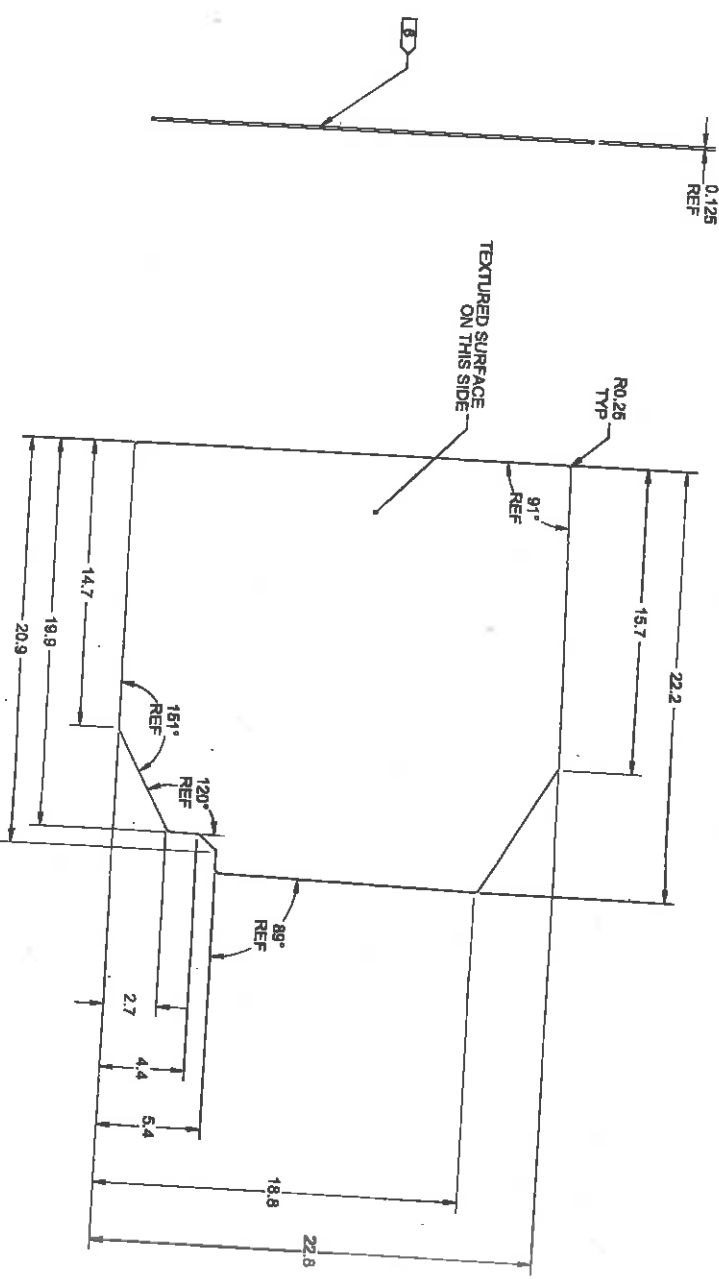
RELEASED
2014-10-08
AM

- APPROVED**

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- NOTES:
- 1) MATERIAL: F80029-GV3778 GREY/LEXAN SHEET (HEAVY HAIRCELL TEXTURE) 0.125 THICK
REF DART SPEC MEXLS: 128-F80029-04
 - 2) FINISH: N/A
 - 3) TOLERANCES: PER DART OSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY PER DART OSI 044 8.4
 - 7) WEIGHT: 2.4 lbs
 - 8) CUT PER D4942-9-DXF

D4942-9 DOOR PROTECTOR



APPROVED

DESIGN	AK	AK	DATE	14.06.16
DRAWN	AK	AK	DATE	14.06.16
CHECKED	AK	AK	DATE	14.06.16
WFG APPR	DL	DL	DATE	14.06.16
APPROVED	HS	HS	DATE	14.06.16
TITLE	DART AEROSPACE LTD			
DRAWING NO.	D4942			
REV. D	BAGGAGE PROTECTORS			
SHEET 5 OF 5	SCALE			
NTS	DATE			

RELEASED
2014-10-08



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO37

Purchase Order Date 8/31/2017

PO Print Date 8/31/2017

Page Number 1 of 1

Order From :

VC-PLT01

PLAS-TECH
115 APPLEWOOD CRESCENT
CONCORD, ONTARIO L4K 5C1

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

AUG 31 2017

Contact Name

Vendor Phone 416-736-0004

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

Buyer

Diane Baker

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	D4942-1P As Per Dwg D4942 Rev. D B165790	Floor Protector	9/14/2017 Yes 9/14/2017	FN	1.00 Each	\$100.00	\$100.00

Line Total: \$100.00

2	71401-45 Procurement Quality Clauses A005 RIGHT OF ENTRY A026 CERTIFICATION OF MATERIAL CONFORMANCE A040 NOTIFICATION OF QUALITY ESCAPE A041 QUALITY MANAGEMENT SYSTEM A042 DART NOTIFICATION BY SUPPLIER A043 RETENTION OF QUALITY DOCUMENTS	PROCUREMENT QUALITY CLAUSES	9/14/2017 No 9/14/2017		1.00	\$0.00	\$0.00
---	--	--------------------------------	----------------------------------	--	------	--------	--------

Line Total: \$0.00

PO Total: \$100.00

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 1

Change Date: 8/31/2017



115 Applewood Crescent
Concord, ON, L4K 5C1
PLASTECHONLINE.COM
P- 416 736 0004
F- 416 736 0010

Packing Slip

Shipment Number: 24474
Shipment Date: 09/19/2017
BOL Number:
Customer Key: C1887
Salesperson: MIKE AUBE
Page Number: 1 of 1

B DART AEROSPACE LTD.
I 1270 ABERDEEN STREET
L HAWKESBURY ON K6A 1K7
L CA
T Attn: ROBERT ABOUD
O Buyer Contact: ROBERT ABOUD

S DART AEROSPACE
H 1270 ABERDEEN STREET
I HAWKESBURY ON K6A 1K7
P CA
T Attn: ROBERT ABOUD
O

Purchase Order
37621
Carrier Account #

Sales Order
SO-019932

Ship Via
FREIGHTCOM INC.

Incoterms
EX WORKS

Payment Method
PPD/CHG
Tracking Number

Item Number - Revision	Description
D4942-1P - Rev.: D	BAGGAGE FLOOR PROTECTOR

AS PER DWG D4942

HS Code: 3920.61.1000 - OTHER Country of Origin : CA

Quantity	UOM
Shipped 1	EA

SP17-9-21

Number of Containers

Gross Weight

Shipped By

Certificate Of Conformance **COPY** PLAS-TECH

Think Plastics™

Customer: DART AEROSPACE LTD P.O. # 37621 SO # 019932-001

Part #	<u>D4942-1P</u>	Qty.	<u>1</u>	Batch #	<u>-001</u>
Description	<u>BAGGAGE FLOOR PROTECTOR</u>	Material usage	<u>1 SHEET</u>	Lot#	<u>M137737</u>
Part #		Qty.		Batch #	
Description		Material usage		Lot#	
Part #		Qty.		Batch #	
Description		Material usage		Lot#	
Part #		Qty.		Batch #	
Description		Material usage		Lot#	
Part #		Qty.		Batch #	
Description		Material usage		Lot#	
Part #		Qty.		Batch #	
Description		Material usage		Lot#	
Part #		Qty.		Batch #	
Description		Material usage		Lot#	
Part #		Qty.		Batch #	
Description		Material usage		Lot#	

Note: All parts are not identified as meeting QSI044.

By: AS Date: SEPT. 15, 2017 COFC # 013
(Approved QA Signatory)

Page: 1 of 1

Plas-Tech Inc. 115 Applewood Cres. Concord, Ontario L4K 5C1 Tel: (416) 736-0004 Fax: (416) 736-0010

Email: info@plasteconline.com, Web: www.plasteconline.com

